theory of graph network: in a

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AI Overview

In a graph network where a community contains 1,000 different spoken languages, **a new dominant language or piece of information spreads slowly**. It takes many steps to cross the community. This happens because the network is heavily partitioned into 1,000 isolated clusters, creating massive structural bottlenecks. Cornell University

Network Barriers

- High modularity splits the graph into 1,000 distinct cliques.
- Nodes only talk to peers sharing the same language.
- Edges between different language groups are rare or missing.

The Role of Hubs and Bridges

- Spread is blocked until it reaches bilingual nodes (bridges).
- These bridge nodes act as connectors between separate language communities.
- Without central hubs, the speed drops to a crawl. Hypotheses – Academic... +1

Information Rate Limits

- Spoken language transfers information at a steady limit of roughly 39 bits per second.
- The speed of total adoption depends on how fast these few bilingual edges pass data.

7 sites

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Language Relationships as a Graph - Cornell blogs

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This graph shows how different languages' information ...

Those packed with information are **spoken** slower, while simpler ones are **spoken faster**. **Languages** that are lower information density are **spoken** ...

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Chapter 2 Graphs

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